

ABSTRACT OF THE INVENTION

Between a source/drain heavily-doped diffusion layer and a region below a side face of a gate electrode in an epitaxial semiconductor substrate, an extension heavily-doped diffusion layer where N-type As ions are diffused is formed to have shallower junction than the source/drain heavily-doped diffusion layer. A pocket heavily-doped diffusion layer where P-type indium ions, that is, heavy ions having a relatively large mass number, are diffused is formed under the extension heavily-doped diffusion layer.